

COMPLETE LISTING OF THE CLAIMS

No amendments to the claims are submitted herein. The following listing of claims reflects the Examiner's Amendment in the NOA.

Listing of Claims

1. (Previously Presented) An illuminator system for a display, comprising:
 - a slab waveguide disposed behind a back face of the display, wherein the slab waveguide is linearly tapered along a Y-axis of the back face of the display, and wherein the slab waveguide is substantially co-extensive with the back face of the display across the Y-axis and across an X-axis of the back face of the display, wherein the Y-axis and the X-axis are perpendicular to each other, and wherein the slab waveguide comprises a thick end and an opposing thin end that are each substantially parallel to the X-axis;
 - a triangular input wedge that is a part of and that protrudes from the thick end of the slab waveguide;
 - an input face of the triangular input wedge that is substantially co-extensive with the back face of the display along the X-axis;
 - a plurality of N light arrays wherein each light array is configured to provide light that is substantially co-extensive with the back face of the display along the X-axis;
 - a linear taper of the input face of the triangular input wedge that, in combination with an angle relative to the input wedge of incoming light from an I^{th} light array of the plurality of N light arrays, is configured to direct the incoming light from the I^{th} light array to emerge from a face of the slab waveguide over only an J^{th} portion of N portions of the back face of the display, wherein each of the N portions is substantially co-extensive with the back face of the display along the X-axis, and wherein each of the N

Reply Responsive to 9-21-2010 Notice of Allowance
Application Number: 10/559,891
Attorney Docket Number: 324007.03

portions are a different portion of the back face of the display than any other of the N portions;

an illuminator system controller configured to synchronize with a controller of the display wherein the illuminator system controller turns off a previously turned-on light array of the plurality of N light arrays and turns on the I^{th} light array of the plurality of N light arrays in response to the controller of the display writing to a corresponding I^{th} portion of N corresponding portions of the display, and wherein the method for illuminating does not utilize any display image data.

2. (Previously Presented) An illuminator system according to claim 1, in which each of the plurality of N light arrays is substantially co-extensive with the back face of the display along the X-axis.

3. (Previously Presented) An illuminator system according to claim 1, further comprising a cylindrical mirror configured to collimate from the plurality of N light arrays into the input face of the triangular input wedge of the slab waveguide.

4-5. (Canceled)

6. (Previously Presented) An illuminator system according to claim 1, further comprising a prismatic film configured to guide the directed light emerging from the face of the slab waveguide normal to the face of the slab waveguide.

7. (Canceled)

8. (Previously Presented) A display according to claim 1, in which the flat-panel display is a liquid-crystal display.

9-10. (Canceled)

11. (Previously Presented) An illuminator system according to claim 1, wherein the slab waveguide is optically linearly tapered via variation in refractive index.

12. (Previously Presented) A method for illuminating a flat-panel display, comprising:
injecting light from a plurality of N light arrays into an input linear wedge of a slab waveguide that is disposed behind a back face of the display, wherein the slab waveguide is linearly tapered along a Y-axis of the back face of the display, and wherein the slab waveguide is substantially co-extensive with the back face of the display across the Y-axis and across an X-axis of the back face of the display, wherein the Y-axis and the X-axis are perpendicular to each other, and wherein the slab waveguide comprises a thick end and an opposing thin end that are each substantially parallel to the X-axis, and wherein the input linear wedge is a part of and protrudes from the thick end of the slab wave guide, and wherein each light array of the plurality of N light arrays provides light that is substantially co-extensive with the back face of the display along the X-axis; and

wherein the injecting light comprises turning off a previously turned-on light array of the plurality of N light arrays and turning on an I^{th} light array of the plurality of N light arrays in response to writing to a corresponding J^{th} portion of N portions of the display, wherein an input face of the input linear wedge is substantially co-extensive with the back face of the display along the second axis and substantially parallel to the

Reply Responsive to 9-21-2010 Notice of Allowance
Application Number: 10/559,891
Attorney Docket Number: 324007.03

X-axis, and wherein a linear taper of the input face of the input linear wedge, in combination with an angle relative to the input wedge of the i^{th} light array of the plurality of N light arrays, directs incoming light from the i^{th} light array to emerge from a face of the slab waveguide over only an i^{th} portion of N portions of the back face of the display, and wherein each of the N portions of the back face of the display is substantially co-extensive with the back face of the display along the X-axis, and wherein each of the N portions of the back face of the display are a different portion of the back face of the display than any other of the N portions of the back face of the display, and wherein the method for illuminating does not utilize any display image data.

13. (Previously Presented) A method according to claim 12, wherein each of the plurality of N light arrays is substantially co-extensive with the back face of the display along the X-axis.

14. (Previously Presented) A method according to claim 12, wherein injected light from the plurality of N light arrays is collimated into the input linear wedge of the waveguide by a cylindrical mirror.

15–16. (Canceled)

17. (Previously Presented) A method according to claim 12, further comprising guiding the injected light emerging from the face of the slab waveguide normal to the face of the slab waveguide.

18–19. (Canceled)

Reply Responsive to 9-21-2010 Notice of Allowance
Application Number: 10/559,891
Attorney Docket Number: 324007.03